



Legal Division

Patent Department
10777 Science Center Drive
San Diego, California 92121
Phone: 858-622-8846 Fax: 858-678-8233

RECEIVED
CENTRAL FAX CENTER

MAY 03 2006

FAX TRANSMITTAL

DATE: May 3, 2006

PLEASE PROMPTLY DELIVER THE FOLLOWING PAGE(S) TO:

NAME: **USPTO**
[Office of Initial Patent Examination's
Filing Receipt Corrections]
FAX NUMBER: **571 273-8300**

FROM: **Jeffrey H. Tidwell**
Corporate Counsel
Intellectual Property

TOTAL NUMBER OF PAGES, INCLUDING THIS PAGE: 7

Re: **Request for Corrected Filing Receipt**
U.S. Patent Application No. 10/718,337, filed Nov. 19, 2003
Docket No. PC25603A

Attached are the following:

- | | |
|--|------------------|
| 1. Transmittal Letter | 1 page; |
| 2. Corrective Filing Receipt | 2 pages; |
| 3. Copy of Updated Filing Receipt, Date Mailed
05/17/2004 | 2 pages; |
| 4. Copy of First Page of Specification, Patent
Application No. 10/718,337 (Atty. Docket No. PC25603A) | 1 page; and |
| 5. Fees Due | Deposit Account. |

CERTIFICATE OF TRANSMISSION:

The hereby certify that the above-identified documents are being transmitted by the facsimile number identified above to the U.S. Patent and Trademark Office on the above-noted date.

Pamela Hollander

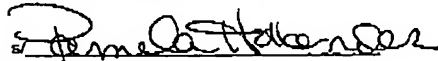
IF YOU DO NOT RECEIVE ALL PAGE(S), PLEASE CALL Pamela Hollander AT 858 622-3194

This facsimile is intended only for the individual to whom it is addressed and may contain information that is privileged, confidential or exempt from disclosure under applicable law. If you have received this facsimile in error, please notify us immediately by telephone (collect), and return the original message to us at the above address.

BEST AVAILABLE COPY

PC25603A
Corrective Filing Receipt

Certificate of Transmission (37 C.F.R. §1.8):
I hereby certify that this correspondence is being sent via
facsimile to: Commissioner for Patents, PO Box 1450,
Alexandria, VA 22313-14 at fax number 571-273-8300 on this
3rd day of May 2006.


Pamela Hollander

RECEIVED
CENTRAL FAX CENTER

MAY 03 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:
Allen BORCHARDT, et al.

Group Art Unit: 1625

Serial No.: 10/718,337

Examiner: Amelia A. Owens

Confirmation No.: 9247

Filed: November 19, 2003

For: INHIBITORS OF HEPATITIS C VIRUS
RNA-DEPENDENT RNA POLYMERASE,
AND COMPOSITIONS AND TREATMENTS
USING THE SAME

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

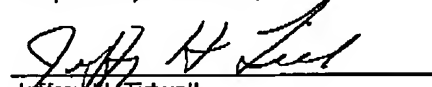
TRANSMITTAL LETTER

Transmitted herewith are the following documents:

- | | |
|---|------------------|
| 1. Fax Coversheet | 1 Coversheet |
| 2. Corrective Filing Receipt | 2 pages; |
| 3. Copy of Updated Filing Receipt, Date Mailed
05/17/2004 | 2 pages; |
| 4. Copy of First Page of Specification, Patent
Application No. 10/718,337 (Atty. Docket No.
PC25603A) | 1 page; and |
| 5. Fees Due | Deposit Account. |

Respectfully submitted,

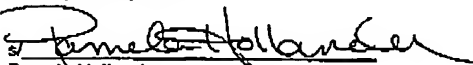
Date: May 3, 2006


Jeffrey H. Tidwell
Attorney for Applicants
Registration No. 47,995

Agouron Pharmaceuticals, Inc./A Pfizer Company
Patent Department, 10777 Science Center Drive
San Diego, California 92121
Phone: (858) 638-3877
Fax: (858) 678-8233

PC25603A
Corrective Filing Receipt

Certificate of Transmittal (37 C.F.R. §1.8):
I hereby certify that this correspondence is being sent via
facsimile to: Commissioner for Patents, PO Box 1450,
Alexandria, VA 22313-14 at fax number 571-273-8300 on this
3rd day of May 2006.


Pamela Hollander

RECEIVED
CENTRAL FAX CENTER
MAY 03 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:
Allen BORCHARDT, et al.

Group Art Unit: 1625

Serial No.: 10/718,337

Examiner: Amelia A. Owens

Confirmation No.: 9247

Filed: November 19, 2003

For: INHIBITORS OF HEPATITIS C VIRUS
RNA-DEPENDENT RNA POLYMERASE,
AND COMPOSITIONS AND TREATMENTS
USING THE SAME

CORRECTIVE FILING RECEIPT

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir,

Please make the following corrections to the filing receipt and kindly generate another Filing Receipt incorporating the requested corrections:

-- Domestic Priority data as claimed by applicant - Should Read:

U.S. Provisional Patent Application No. 60/472,355, filed May 20, 2003, and

U.S. Provisional Patent Application No. 60/449,088, filed February 21, 2003.

The first full paragraph of the as-filed specification includes a priority claim based on United States Provisional Application Nos. 60/472,355, filed May 20, 2003, and 60/449,088, filed February 21, 2003. Applicants believe this statement, filed within the time period set forth in 37 CFR §1.78(a)(5)(ii), and contained in the first paragraph of the as-filed specification, pursuant to 37 CFR §1.78(a)(5)(i), is sufficient to perfect the priority claim. As such, Applicants respectfully request that this priority claim be entered and reflected on a corrected filing receipt.

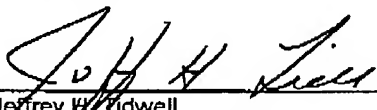
Applicants herein include a copy of the first page of the as-filed specification, with the priority claim in the first paragraph, for the convenience of the Office.

PC25603A
Corrective Filing Receipt

No fee is believed to be due at this time. If the applicant is in error, please charge all fees related to this filing to Deposit Account No. 500329.

Respectfully submitted,

Date: May 3, 2006


Jeffrey H. Midwell
Attorney for Applicants
Registration No. 47,995

Agouron Pharmaceuticals, Inc./A Pfizer Company
Patent Department, 10777 Science Center Drive
San Diego, California 92121
Phone: (858) 638-3877
Fax: (858) 678-8233

JHT

OK-JHT
sludal

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REGD	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10718,337	11/19/2003	1625	2148	PC25603A		32	15

CONFIRMATION NO. 9247

28940
AGOURON PHARMACEUTICALS, INC.
10350 NORTH TORREY PINES ROAD
LA JOLLA, CA 92037

RECEIVED

MAY 24 2004

UPDATED FILING RECEIPT

10718337 11/19/2003 1625 2148 PC25603A 32 15
"OC000000012690825"

Date Mailed: 05/17/2004

LA JOLLA PATENT DEPT

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

- ✓ Allen Borchardt, San Diego, CA;
- ✓ Javier Gonzalez, Oceanside, CA;
- ✓ Hui Li, Carlsbad, CA;
- ✓ Maria Angelica Linton, San Diego, CA;
- ✓ John Howard Tallock, San Diego, CA;

Assignment For Published Patent Application

- ✓ Agouron Pharmaceuticals, Inc.;

Domestic Priority data as claimed by applicant
U.S. provisional patent Application No. 60/472,355, filed May 20, 2003, and
U.S. provisional patent Application No. 60/449,088, filed Feb. 21, 2003.
Foreign Applications

If Required, Foreign Filing License Granted: 03/22/2004

Projected Publication Date: 05/19/2005

Non-Publication Request: No

Early Publication Request: No

Title

BEST AVAILABLE COPY

Inhibitors of hepatitis C virus RNA-dependent RNA polymerase, and compositions and treatments using the same

Preliminary Class

514

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

BEST AVAILABLE COPY

CV341080001USJ

INHIBITORS OF HEPATITIS C VIRUS RNA-DEPENDENT RNA POLYMERASE, AND
COMPOSITIONS AND TREATMENTS USING THE SAME

Background of the Invention

5 This application claims priority under 35 U.S.C. § 119(e) to United States Provisional Application No. 60/472,355, filed May 20, 2003, and United States Provisional Application No. 60/449,088, filed February 21, 2003, both of which are hereby incorporated by reference.

The invention relates to agents that inhibit hepatitis C virus (HCV) RNA-dependent RNA polymerase (RdRp). The invention also relates to the use of such compounds in pharmaceutical compositions and therapeutic treatments useful for inhibition of HCV replication.

10 HCV is an enveloped RNA virus containing a single-stranded positive-sense RNA genome approximately 9.5 kb in length (Choo et al., *Science* 244:359-362 (1989)). The RNA genome contains a 5'-nontranslated region (5' NTR) of 341 nucleotides (Brown et al., *Nucl. Acids Res.* 20:5041-5045 (1992); Bukh et al., *Proc. Natl. Acad. Sci. USA* 89:4942-4946 (1992)), a large open reading frame (ORF) encoding a single polypeptide of 3,010 to 3,040 amino acids (Choo et al., (1989), *supra*), and a 3'-nontranslated region (3'-NTR) of variable length of about 230
15 nucleotides (Kolykhalov et al., *J. Virol.* 70:3363-3371 (1996); Tanaka et al., *J. Virol.* 70:3307-3312 (1996)).

The 5' NTR is one of the most conserved regions of the viral genome and plays a pivotal role in the initiation of translation of the viral polyprotein (Bartenschlager (1997), *supra*). A single
20 ORF encodes a polyprotein that is co- or post-translationally processed into structural (core, E1, and E2) and nonstructural (NS2, NS3, NS4A, NS4B, NS5A, and NS5B) viral proteins by either cellular or viral proteinases (Bartenschlager (1997), *supra*). The 3' NTR consists of three distinct regions: a variable region of about 38 nucleotides following the stop codon of the polyprotein, a polyuridine tract of variable length with interspersed substitutions of cystines, and 98 nucleotides
25 (nt) at the very 3' end which are highly conserved among various HCV isolates. The order of the genes within the genome is: NH₂-C-E1-E2-p7-NS2-NS3-NS4A-NS4B-NS5A-NS5B-COOH (Grakoui et al., *J. Virol.* 67:1385-1395 (1993)).

Hepatitis C virus (HCV) is a member of the hepacivirus genus in the family *Flaviviridae*. It is the major causative agent of non-A, non-B viral hepatitis and is the major cause of transfusion-associated hepatitis and accounts for a significant proportion of hepatitis cases worldwide.
30 Although acute HCV infection is often asymptomatic, nearly 80% of cases resolve to chronic hepatitis. The persistent property of the HCV infection has been explained by its ability to escape from the host immune surveillance through hypermutability of the exposed regions in the

BEST AVAILABLE COPY